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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2019-09-06-18** **Date: 28-06-19**
Project Name	:	Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.
Agency	:	M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079
Customer's Reference	:	BBMP/EE/BTP/WO/71/2018-19
Date of Receipt	:	25-06-19
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 (Part 1,2 3,4,5, 6,11):1988 IS 4031 Part 1 DETERMINATION OF FINENESS BY DRY SIEVING, Clause 4.4 IS 4031 Part 2, Determination of Fineness by Blaine Air Permeability Method, Clause 5 IS 4031 Part 3, Determination of Soundness, Clause 5,Clause 6 IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 5, Determination of Initial & Final Setting Time, Clause 5 IS 4031 Part 11,DETERMINATION OF DENSITY , Clause 6
Date of test	:	26-06-19
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	Fineness by dry sieving (%)	1.76	–
2	Finess by Air permeablity method (m^2/kg,Min)	292.1	225m^2/kg, Min
3	Density (gm/cc)	3.12	–
4	Standard Consistency (%)	28.0%	Not specified
5	Initial Setting time	155 minutes	Not less than 30 minutes
6	Final Setting time	270 minutes	Not more than 600 minutes
7	Soundness (Le Chatelier's Method)	1mm	Not more than 10 mm

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

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****End of Report****

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TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID	:	**CP-2019-09-06-18** **Date: 24-07-19**
Project Name	:	Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.
Agency	:	M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079
Customer's Reference	:	BBMP/EE/BTP/WO/71/2018-19
Date of Receipt	:	25-06-19
Sample Type	:	Birla Super 53grade
Reference to BIS codes	:	IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification , IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5 IS 4031 Part 6, Determination of Compressive Strength, Clause 6
Date of test	:	26-06-19
Environmental Conditions during test	:	Temperature: 26°C Humidity: 72%

Compressive Strength

Sl.No.	Physical properties	Results	Requirement as per IS 12269: 2013
1	3 Days	28.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	39.0N/mm^2	Not less than 37 N/mm^2
3	28 Days	58.5N/mm^2	Not less than 53 N/mm^2

FOR CIVIL Pro.

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka, B.B.M.P., Bangalore.

CIVIL Pro BANGALORE Sig..... Date.....

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TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-09-06-18** **Date: 28-06-19**

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 25-06-19

Sample Type : 40mm down size coarse aggregate

Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2011
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
IS 2386 Part 4: Mechanical Properties

Date of test : 25-06-19

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : **15000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	245	245	1.6	98.4	90-100
3	20 mm	7875	8120	54.1	45.9	30-70
4	10 mm	3899	12019	80.1	19.9	10-35
5	4.75 mm	2588	14607	97.4	2.6	0-5
6	Pan	393	15000	100.0	0	---

CIVIL Pro Sig..... Date..... BANGALORE

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-09-06-18** **Date: 28-06-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	12.4	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.9	
3	Specific Gravity	2.64	_
4	Bulk Density(Loose) (Kg/l)	1.38	_
5	Bulk Density(Compacted) (Kg/l)	1.45	_
6	Water Absorption(%)	0.22	_

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

Format No: CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-09-06-18** **Date: 27-06-19**

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 25-06-19

Sample Type/ Size : 20mm down size coarse aggregate

Reference to BIS codes : IS: 383:2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1,3,4) RA2011
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
IS 2386 Part 4: Mechanical Properties

Date of test : 25-06-19

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM DOWN COARSE AGGREGATE:

Total weight taken : **5000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	40 mm	0	0	0	100	100
2	20 mm	298	298	6.0	94.0	90-100
3	10 mm	2645	2943	58.9	41.1	25-55
4	4.75 mm	1811	4754	95.1	4.9	0-10
5	Pan	246	5000	100	0	

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TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2019-09-06-18** **Date: 27-06-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	8.9	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.4	
3	Specific Gravity	2.62	_
4	Bulk Density(Loose) (Kg/l)	1.42	_
5	Bulk Density(Compacted) (Kg/l)	1.48	_
6	Water Absorption(%)	0.35	_
7	Aggregate crushing Value(%)	24.8	Max 30% for Aggregates to be used in concrete for wearing Surface, In case Aggregate Crushing Value Exceeds 30% then the test for ten percent fines should be conducted for Aggregates to be used in concrete other than for wearing Surface.
8	Aggregate Impact Value(%)	25.1	30% for Aggregates to be used in concrete for wearing Surface, 45% for Aggregates to be used in concrete other than for wearing Surface.

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R KARTHIK RECHAN
Authorized Signature
Quality Manager

CIVIL PRO Sig..... Date..... BANGALORE

Page 2/2
End of Report

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Format No: CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2019-09-06-18**

Date: 27-06-19

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 25-06-19

Sample Type : Fine Aggregate

Reference to BIS codes : IS 383 : 2016 (Specification for Coarse and fine Aggregates)
IS: 2386 :1963(Part - 1, 3) RA2012
IS 2386 Part 1: Particle Size and Shape
IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption

Date of test : 25-06-19

Total weight taken : 1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	27	27	2.7	97.3	90-100	90-100	90-100	95-100
3	2.36 mm	55	82	8.2	91.8	60-95	75-100	85-100	95-100
4	1.18 mm	239	321	32.1	67.9	30-70	55-90	75-100	90-100
5	600 micron	205	526	52.6	47.4	15-34	35-59	60-79	80-100
6	300 micron	203	729	72.9	27.1	5-20	8-30	12-40	15-50
7	150 micron	191	920	92.0	8.0	0-10	0-10	0-10	0-15
8	Pan	80	1000	100.0	0.0	---	---	---	---

Result :The tested Sample Conforms to Grading Zone II

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TEST REPORT OF FINE AGGREGATE

Lab ID : **CP-2019-09-06-18** **Date: 27-06-19**

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS 383:2016
1	Water Absorption(%)	1.5	–
2	Specific Gravity	2.59	–
3	Material finer than 75 micron(%)	6.9	Uncrushed fine Aggregate Max 3%, Crushed Fine aggregate Max 15%, Mixed Fine aggregate Max 12%, Manufactured Fine aggregate Max 10%

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

****End of Report****

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Format No: CP/TF/01

TEST REPORT ON PHYSICAL REQUIREMENTS OF SOLID CONCRETE BLOCKS

Lab ID	:	CP-2019-09-06-18 **Date: 09-07-19**
Project Name	:	Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.
Agency	:	M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079
Customer's Reference	:	BBMP/EE/BTP/WO/71/2018-19
Date of Receipt	:	06-07-19
Sample Type/Size	:	Solid concrete blocks size (400X150X200)mm
Reference to BIS codes	:	IS : 2185 (Part 1) : 2005(RA 2010) Concrete Masonry Specification Part 1:Hollow and Solid Concrete Blocks (Dimensions -Annex-B, Clause 9.2 and 10 , Block density Annex -C Clause 9.3 and10, Compressive strength Annex -D Clause 9.4 and 10, Water absorption Annex -E Clause 9.5 and 10)
Date of test	:	06-07-19

BLOCK DENSITY:

Sl. No.	Measurement of overall Dimensions of Individual Blocks			Overall Volume of the Block in Cubic Centimetres	Weight of Oven Dried Block in Kilograms to the nearest 10 Gram	Block Density in Kg/cum*10^6	Avg.Block Density in (Kg/cum)	As per IS 2185(Part 1) :2005 (RA 2010)
	Length	Breadth	Height					
	mm	mm	mm	(Cm^3)	Kg	Kg/m^3	Kg/m^3	
1	398	151	198	11899	31.336	2633.4	2631.6	Not less than 1800Kg/m^3
2	402	153	200	12301	30.550	2483.5		
3	400	150	202	12120	33.669	2777.9		

WATER ABSORPTION:

Sl. No.	Wet weight after water absorption	Dry weight (Oven dry)	Water Absorption	Avg.Water Absorption	As per IS 2185(Part 1):2005 (RA 2010)
	kg	kg	%	%	
1	32.91	31.30	4.89	4.25	Shall not be more than 10% by mass
2	32.57	31.18	4.28		
3	32.45	31.29	3.59		

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Lab ID : **CP-2019-09-06-18** **Date: 09-07-19**

DIMENSION ANALYSIS

Sl.no	Length mm	Breadth mm	Height mm	Requirement as per IS 2185(Part 1):2005
1	402	152	200	Length : ± 5mm Breadth : ± 3mm Height : ± 3mm
2	403	149	200	
3	403	152	200	
4	404	149	201	
5	400	151	200	
6	402	152	202	
7	404	152	200	
8	400	149	202	
9	404	152	200	
10	403	151	199	
11	403	150	199	
12	400	150	201	
13	404	149	202	
14	402	150	199	
15	403	153	202	
16	400	151	203	
17	402	152	201	
18	401	152	201	
19	403	153	202	
20	402	152	203	
Average of 20	**402**	**151**	**201**	

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

: **CP-2019-09-06-18** **Date: 30/07/2019**

:

t Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

y : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

mer's Reference : BBMP/EE/BTP/WO/71/2018-19

f Receipt : 04-07-19

mer ID : PCC

e Type /Size : 150X150X150 mm

e grade/Age : M20 / 28 Days Compressive Strength

nce to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

f test : 30/07/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
PCC	M20	02/07/2019	30/07/2019	151.24 X 150.13 X 149.04	22705	**8.269**	530.2	23.4	23.2
PCC	M20	02/07/2019	30/07/2019	151.54 X 149.88 X 151.27	22712	**8.095**	513.1	22.6	
PCC	M20	02/07/2019	30/07/2019	150.73 X 150.69 X 150.96	22713	**8.708**	536.0	23.6	

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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

D : **CP-2019-09-06-18** **Date: 09/07/2019**

:

ct Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

cy : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

omer's Reference : BBMP/EE/BTP/WO/71/2018-19

of Receipt : 04-07-19

omer ID : PCC

ple Type /Size : 150X150X150 mm

ple grade/Age : M20 / 7 Days Compressive Strength

rence to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

of test : 09/07/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
PCC	M20	02/07/2019	09/07/2019	151.88 X 151.54 X 151.21	23015	**8.330**	433.7	18.8	18.7
PCC	M20	02/07/2019	09/07/2019	149.52 X 149.40 X 150.77	22338	**8.750**	421.6	18.9	
PCC	M20	02/07/2019	09/07/2019	149.69 X 151.47 X 149.40	22674	**8.124**	415.0	18.3	

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

AE(E) Assistant Executive Engineer, Kodigehalli Sub Division, Yelahanka Zone, B.B.M.P., Bangalore.

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

ID : **CP-2019-09-06-18** **Date: 30/07/2019**

ect Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

ncy : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

tomer's Reference : BBMP/EE/BTP/WO/71/2018-19

e of Receipt : 04-07-19

tomer ID : PCC

mple Type /Size : 150X150X150 mm

mple grade/Age : M20 / 28 Days Compressive Strength

erence to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

e of test : 30/07/2019

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
PCC	M20	02/07/2019	30/07/2019	150.79 X 151.91 X 149.44	22906	**8.269**	545.6	23.8	23.3
PCC	M20	02/07/2019	30/07/2019	150.44 X 149.85 X 149.20	22543	**8.095**	500.2	22.2	
PCC	M20	02/07/2019	30/07/2019	149.11 X 149.09 X 151.22	22230	**8.708**	530.6	23.9	

FOR CIVIL Pro.

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Quality Manager

Assistant Executive Engineer,
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HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 09/07/2019

ab ID : **CP-2019-09-06-18**

roject Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

gency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

ustomer's Reference : BBMP/EE/BTP/WO/71/2018-19

ate of Receipt : 04-07-19

ustomer ID : PCC

ample Type /Size : 150X150X150 mm

ample grade/Age : M20 / 7 Days Compressive Strength

eference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

ate of test : 09/07/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M20	02/07/2019	09/07/2019	150.42 X 149.58 X 151.39	22499	**8.330**	408.0	18.1	18.5
2	PCC	M20	02/07/2019	09/07/2019	151.51 X 150.60 X 150.21	22818	**8.750**	419.2	18.4	
3	PCC	M20	02/07/2019	09/07/2019	150.97 X 150.02 X 149.41	22648	**8.124**	430.0	19.0	

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Format No: CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 30/07/2019

Lab ID : **CP-2019-09-06-18**

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

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Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 04-07-19

Customer ID : PCC

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M20 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5

Date of test : 30/07/2019

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M20	02/07/2019	30/07/2019	150.84 X 150.25 X 149.99	22664	**8.269**	525.7	23.2	22.9
2	PCC	M20	02/07/2019	30/07/2019	151.89 X 151.53 X 149.27	23016	**8.095**	508.8	22.1	
3	PCC	M20	02/07/2019	30/07/2019	150.40 X 151.01 X 150.29	22713	**8.708**	533.1	23.5	

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CIVIL Pro Sig..... Date..... BANGALORE

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HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

TEST REPORT OF CERAMIC TILES

Lab ID : **CP-2019-09-06-18** **Date: 05-08-19**

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 30-07-19

Sample Type/ Size : Ceramic tiles (300X300)mm

Reference to BIS codes : IS 13630 (part 1) : 2006, IS 15622:2006

Date of test : 30-07-19

MEASUREMENTS OF LENGTH, WIDTH AND THICKNESS

Number Of Specimen	Length measured at position 5mm from the corner		Breadth measured at position 5mm from the corner		Thickness measured at thickest part, 4 diagonal segment			
	1	2	1	2	1	2	3	4
1	300	300	300	300	12.04	12.01	12.08	12.04
2	300	300	300	300	12.01	12.07	12.01	12.01
3	300	300	300	300	12.03	12.05	12.06	12.03
4	300	300	300	300	12.06	12.05	12.08	12.06
5	300	300	300	300	12.08	12.06	12.05	12.08
6	300	300	300	300	12.03	12.07	12.07	12.07
7	300	300	300	300	12.08	12.05	12.08	12.07
8	300	300	300	300	12.02	12.05	12.04	12.05
9	300	300	300	300	12.04	12.04	12.02	12.04
10	300	300	300	300	12.04	12.01	12.05	12.04
Average	**300**		**300**		**12.05**			

CIVIL Pro Sig..... Date..... BANGALORE

TEST REPORT OF CERAMIC TILES

WATER ABSORPTION

Sl.no	Weight of oven dry sample	Saturated weight of sample	Water absorption by mass	Average value of water absorption
1	1206	1255	4.06	3.32
2	1224	1264	3.27	
3	1264	1298	2.69	
4	1208	1254	3.81	
5	1234	1268	2.76	

MODULUS OF RUPTURE AND BREAKING STRENGTH

Sl.No

Sl.No.	Dimension (mm)			Wet Transverse Strength	Average
	L	B	T	(N/mm^2)	(N/mm^2)
1	300	300	6.04	12.8	12.46
2	300	300	6.06	12.2	
3	300	300	6.02	12.9	
4	300	300	6.06	11.8	
5	300	300	6.05	12.6	

FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signature
Quality Manager

Assistant Executive Engineer
Kodigehalli Sub Division,
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Bangalore.

CIVIL Pro BANGALORE Sig. Date

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTS FOR CHAIN LINK FENCING

Lab ID : **CP-2019-09-06-18** **Date: 13-07-19**

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 12-07-19

Type of Sample : Chain Link Fencing

Reference to BIS codes : IS 2062:2011

Date of testing : 12-07-19

TESTS RESULT FOR WIRE MESH		
SL.NO	**Description**	**Result**
1	**Average Thickness in mm**	4.04
2	**Dia of linewire in mm**	3.14
3	**Mesh size in mm**	50.01
4	**Nominaldia of meshwire in mm**	2.52
5	**Bend Test**	Satisfactory

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R KARTHIK RECHAN
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Quality Manager

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TEST RESULTES FOR MS RECTANGULAR POLE

ab ID : **CP-2019-09-06-18** **Date: 16-07-19**

roject Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura.

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 15-07-19

Type of Sample : M.S Rectangular Pole(60X60X6)mm

Reference to BIS codes : IS:1608-2005(RA 2011), IS 1599-2012.

Date of testing : 15-07-19

TESTS RESULTS FOR M.S RECTANGULAR POLES MADE OUT OF 2 EQUAL ANGLES OF 65 X 65 X 6 MM WELDED TOGETHER

SL.NO	Description	Result	Required as per IS Code 2062:2011	Remarks
1	Weight/Meter (Kg /m)	5.81	5.8 Kg/m	Satisfactory
2	Yeild stress (N/mm2)	278	250N/mm^2	Satisfactory
3	Tensile Strength (N/mm2)	485	410N/mm^2	Satisfactory
4	Elongation Percentage (%)	23.5	Min23%	Satisfactory
5	Bend Test	Satisfactory	Should not Crack or fracture	Satisfactory

FOR CIVIL Pro

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AE(M)

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4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST RESULTES FOR MS BLOCK PIPE

Lab ID : **CP-2019-09-06-18** **Date: 16-07-19**

Agency : M/s. Nischal Constructions, Sri.Naveen rao N, No.363, 10th main, 1st Cross, Sampigelayout, Vijayanagara, Bangalore-560079

Project Name : Package -2, Includes 3 works of Rs.228.00 Lakhs 1) Desilting and repairs to side walls of storm water drain from Byatarayanapura Ayyappa temple road to Bata Showroom (Near NH-7 Bellary road) from L and T Compound to Venkatesh Reddy house at Byatarayanapura from Kriyanna House to Mandi Appaiah Farm House and from Gullappa Nursery (NH-7) to Amruthahalli Lake in Ward No.07, Byatarayanapura. 2) Construction and improvements of toilets in Kempura, Yogeshnagara, Amruthanagara and surrounding area in ward No.07 Byatarayanapura. 3) Improvements of burial grouds and crematorium in ward No.07, Byatarayanapura

Customer's Reference : BBMP/EE/BTP/WO/71/2018-19

Date of Receipt : 15-07-19

Type of Sample : M.S Block Pipe

Reference to BIS codes : IS:1608-2005(RA 2011), IS 1599-2012.

Date of testing : 15-07-19

TESTS RESULTS FOR MS BLOCK PIPE 38MM DIA, 14 GAUGE				
Sl. No	**Description**	**Result**	**Required as per as IS Code 2062: 2011**	**Remarks**
1	Yeild Stress (N/mm2)	299	250N/mm^2	Satisfactory
2	Tensile Strength (N/mm2)	509	410N/mm^2	Satisfactory
3	Elongation Percentage (%)	24	Min 23%	Satisfactory

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Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

AE (Tech)

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